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Project Well Installation	No	<u></u>	-	00x1146	Boring#: 人-F-1
Client www engineering	Loc	<u>:</u>	Albion, M	lichigan	DrilleMcCordy Pucci
R&R Rep :	_ Date	: //	7-21-	92	Dril Bromley / Krakow
Client Rep: Nen Johnson- www	≨Rig#		CME 750	CME 75A	Joe M. Le
DESCRIPTION	UNIT	Level I	Level C	COMMEN	TS TIME LOG
Mobilization and Demobilization	ea.				Start
of Drill Rig					
Augering, 4-1/4" H.S.A.	11.	[6:00
(No Samples)	1-				
Augering, 8-1/4" H.S.A.	\rac{1}{10.				7.00 Land Supplies
(No Samples) Augering, 4-1/4 H.S.A			200 8 400		8:00 77.00 2/
w/2.5' and 5' c/c S.S. Samples	ft.	,			S. C. FALLE
Augering, 4-1/4 H.S.A	10-1		1	 -	9.00
w/ cont. S.S. Samples	36	\rightarrow	36:		
Augering, 8-14 H.S.A	(t.				10:00
w/cont. S.S. Samples					
Split Spoon Samples (3")	138	-	18'	e e e e e e e e e e e e e e e e e e e	11:00
Shelby lubes, 3" Dia.	28.				1275 uni fond Sujon-S
Sample Jars	62				LUNCH From 100 To 130
Coring, NX or NXWL	ft.				From 150 To: 130.
Air Rotary, 5-7/8" bit (No Sample)	ft.				2. Mayo to 1 P-1
Packer Testing	hr.			Tandby	
Wooden Boxes, NX or NXWL	ea.				4:00
Vertical Groundwater Sampling through	e2.				
4.25"H.S.A.			1.00 mg	·	5:00
Vertical Groundwater Sampling through	ea.				
Bedrock corehole				-	6:00
Reaming: NX 105-7/8	ft.				EDG - 6
Rig and Equipment Decontamination	ca.				
				_	

452 P03



Project Well Inst	allation No	3	-4		004146	Bori	DK#: LF	<u></u>
Client WW ENC	SINEERING L)C :		Albion, I	Michigan	Drill	McCurdy Pucci)
R&R Rep :	D	ate :		2-21	-92	Dril	Bromley / Krukow	·
Client Rep : Alan (Miner NINES RI	g#:		CME 75	TICME 75A		Joe M.K.	e.
DESCRIPTION	U	NITS	Level D	Level C	COMMEN	₹TS	TIME LOC	
Well development	hr							
4" Protective Casing with	ea	. /					1	
373'x4'Pad					1		<u> </u>	
6 Ft Steel Post, 2'x2"	ea	·/\						
Drilled & Concrete Set			}					·•·
Screen: 2" PVC, SCH 40	ea	./	. }					
(Installed 10' Screen)	/			12.29 412	!			
Scroen: 2° PVC, SCH 40	ta	./		2000	\	_	}	
(Installed 5' Screen)						,		
Screen: 2° PVC, SCH 40	લ	./					}	
(3 ft. long material only)							j	
Riber: 2" PVC, SCH 40	n.			2.5			}	
(material only)						<u>.</u>	j	•
Riber: 2" PVC, SCH 40	ft.							
(Installed)	<u> </u>	<u> </u>						
Locking Caps: 2" PVC, So	CH 40 ca	./						
(Includes Master Lock)				To the second second			}	
Riser: 6° PVC, SCH 80	ft.	/				,)	
(Installed)				See English				
Back回: 4-1/4" H.S.A. G:	tout in well annulas ft.				_		}	
(Cement & powdered ben	itonite)			1			·	
Backfilt Bedrock Wells G	rout in well annulas ft.		i	righting.			<u>,</u>	
(Coment & powdered ben	ilonite)							
Well Abandonment	ft.	/					}	
(Cerrent & powdered hen	nonite)							
Boring Abandonment	ft.	7		nga malaying ng Basang alamas]	•
(Coment & powdered ben	ionite)	<u></u>]	
Sand (80 lbs)	ſĿ							
(In overburden wells)		1						
Sand (80 10s)	ſī,	7					,	
(In Bedrock Welk)								
Sand (80 lbs)	ba	8/					}	
(Material Only)		_		11. 8 9 12			}	



Project Well Installation	No	: 3		24146	Borin	8#: 1 F-1
Client WW ENGINEERING	Loc	•	Albion, M	ichigan	Drille	McCurdy Pucci
R&R Rep :	Date	: ,	10-21-	- 92	Dril b	Bromley / Krukow
Client Rep: An Johnson www.	;Rig #:		CME 750	CHE 75A		Joc M. he
DESCRIPTION	UNITS	Level D	Level C	COMMEN	TS	TIME LOG
Bentonite Pellets (50 lbs)	Pail				`\	
Out of Town Charges	days					
17H 55 Gallon Drums	63.					
Standby Time	hr.					
Comments:						
		nagatina a dandari (m. 1889).		of the martiality to	_	



Project Well Installation	_ No :	-	204146 I	Boring#: LF-/
Client <u>www.engineering</u>	_ Loc :	Albion, M	lichigan I	DrilleMcCurdy Preci
R&R Rep :	_ Date :	10-22.	72_ I	Oril Bromley / Krukow
Client Rep : Lon Johnson www.	≥ Rig #:	CME 750	CME 75A	M. Ke Joe
DESCRIPTION	UNITS	Level C	COMMENT	TIME LOG
Mobilization and Demobilization	23.	Constitution (Constitution of Constitution of		Start
of Drill Rig				
Augering, 4-1/4" H.S.A.	(iL)			6:00
(No Samples)		Property of the second		And the second s
Augering, 8-1/4" H.S.A.	ſt.	Control of the Contro		7:00
(No Samples)		San San San		SOO FARE SOSA
Augering, 4-1/4 H.S.A	ft.	And the same of th		8:00 FARE COSA
w/25' and 5' c/c S.S. Samples		Out State of	- 49.5	The second of th
Augering, 4-1/4 H.S.A		Ma .	Sett Duck	9:00:5277.2. weld
w/cont Sis. Samples		70 ·		
Augering, 8-1/4 H.S.A	ft.		Porthand -	3 000 2 - 7 - 2 L
w/ cont. S.S. Samples		1 11 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		11:00 14 40 41.6
Split Spoon Samples (3°)	3.5	Control of the Contro		
Shelby tubes, 3° Dia.	ea.	The second secon		12.50.24.24.5 Jeco
Sample Jars	dz	The second secon		From / 36 To / 62
Coring, NX or NXWL	ft.	And the second s	the.	- 35 Tandy by
Air Rotary, 5-7/8" bit	n.			The second secon
(No Sample)		Control of the		> 230 well Develop
Packer Testing	hr.	# 100 mm in the contract of th	START Dr. 1	
Wooden Boxes, NX or NXWL	ca.	William Co.		4305-77 mall
Vertical Groundwater Sampling through	ca. /	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
4.25"H.S.A.		William Control	1	S-00
Vertical Groundwater Sampling through	ea,	202. William 1		
Bedrock corehole				6.00
Reaming: NX to 5-7/8	n.	20% (5 to 10		
Vegunt 8: 14V 10 2 - 110		They be not to the control of the co	ii .	Ebd
Rig and Equipment Decontamination	ea./	Park to the second of the seco		William Control of the Control of th



Mw-/-5G-DAILY PRODUCTION RECORDS

Project	Well Installation	No			004146	Borin	18#: L.F1
Client	WW ENGINEERING	Loc	<u>. </u>	Albion, l	dichigan	Drille	McCurdy Phoci
R&R Rep	· ;	Date	: 10	-21	92	Drill	Browley / Krukow
Client Re	p: Dan Character	Rig#		CME 750	CME 75A		Doc Nike
DESC	RIPTION	UNIT	Level D	Level C	COMMEN	ITS	TIME LOG
Well develop		hr.					
4' Protective	Casing with	ea.					
3'x 3' x 4" Pac	<u> </u>	1	<u> </u>				
6FL Steel Po	ost, 272"	ea.					
Drilled & Co	ncrete Set						
Screen: 2" PV	/C, SCH 40 /	ea. /					
(Installed 10'				1			
Screen: 2" PV	/C, SCH 40	e3.					
(Installed 5'							!
Screen: 2" PV	7C, SCH 40	ca.	}		A		
(3 fr long ma		<u></u>		200			1
Riser: 2" PV	C, 8CH 40	R.					
(material onl		12	*	322.2	<u> </u>		1
Riser: 2" PV	C,SCH 40	62	1		ll.		
(Installed)]
• •	s: 2" PVC, SCH 40 !	ea.		22.5	Į.		•
(Includes Ma		1 1					
Riser: 6" PV	C, SCH 80	ſı.			{		į
(Installed)		1					
	14" H.S.A. Grout in well annulas	20		E	}		<u> </u>
	owdered bentonic) 22'						
	rock Wells Grout in well annulss	II.					ļ
	iswdered bentonite)						
Well Abando		ft.	-				
(Cement & p	sowdered hentonite)	J					1
Boring Aban		ft.			<u> </u>		į
	nowdered bentonite)	4	<u> </u>				
Sand (80 lbs)		73	}				
(In overburd		 /	 				
Sand (80 lbs)	•	n.	1				
(In Bedrock							+
Sand (80 lbs)		bag	1				
Material Or	nlv) '	ſ	1	Martin San	D .		1



		•					Mw-(-	56
	DA	YLLY	PRC	DUC	TION	RE	CORDS	•
Project	Well Installation	No :			04146	Boti	ng#: 2 F-1	_ _
Client	ww engineering	_ Loc		Aldion, Mi			McCurdy Pucci	_
R&R Rep	<u>: </u>	_ Date :	10	-22 -	72	Dril	Bromley / Krukow	 -
Client Rep	o: Dan Johnson - we	ueRig#:	- 2	CME 750	TEME 75A		Dec Mike	
DESCR	RIPTION	UNITS	Level D	Level C.	сомме	NTS	TIME LOG	
Bentonite Pel	Hole Plas	Pail.	Bag					
Out of Town	Charges	days	0					
17H 55 Gallo	n Oruns	ca.						
Standby Time		hr.					1	•
Comments:	water H.			T			_1	
		1	7	<u></u>				_
	2.5 has see	Thin	، حرارا	16'5				
	9 Pugs	0		المناجدة				~
	1	S' Y' 1				· · · · · · · · · · · · · · · · · · ·		



Project Well Installation	_ No :	004/46 Bo	ring#:MW-1.SG
Client WW ENGINEERING	_ Loc :	Albion, Michigan Dr	illiMcCurdy / Pucci
R&R Rep:	_ Date :	10-23.42 Dr	il Bromley / Krukow
Client Rep :	Rig #:	EME 750 LEME 75A	Joe Mike
DESCRIPTION	UNITE Level	DLevel C COMMENTS	TIME LOG
Mobilization and Demobilization	ea.		Start / 30
of Drill Rig			6:00
Augering, 4-1/4" H.S.A. (No Samples)	ft.		
Augering, 8-1/4" H.S.A.	ft.	- 10 Marie 1 M	7:00
(No Samples)			ll · · ·
Augering, 4-1/4 H.S.A	11.	Maria and a second	Move Ohen Go
w/ 2.5' and 5' c/c S.S. Samples			820 Water Hautin
Augering, 4-1/4 H.S.A	ft.		9.00 Greating HU
w/cont. S.S. Samples		200 C C C C C C C C C C C C C C C C C C	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Augering, 8-1/4 H.S.A	ft.		10:003 X3 Fadou
w/ cont. S.S. Samples			- 11:00 W-15G
Split Spoon Samples (3")	ea.	STARIA.	11:00
			1/32
Shelby tubes, 3° Dia.	€a.		- 1200 Decon
Sample Jars	02		LUNCH From 19 730
			From: 7-Tol
Coring, NX or NXWL	ft.	TAKEOVENFO	
		Ms Cardy 3	- Good well levelo
Air Rotary, 5-7/8° bit	ft.		
(No Sample)			2:00 Decox FumP
Packer Testing	hr.		215 Devilop MW-
Manda Barra Maria			3:00
Wooden Boxes, NX or NXWL	ea.		
Vegical County of County			4:00
Vertical Groundwater Sampling through	ea.		
4.25"H.S.A.			5:00
Vertical Groundwater Sampling through Bedrock corehole	ea.		12
Reaming: NX to 5-7/8	st.		6:00 7
11-11-11-11-11-11-11-11-11-11-11-11-11-			End Q
Rig and Equipment Decontamination	ea. p		
	[]		



	Project Well Installation	No			004146	Borin	g#:	
	Client WW ENGINEERING	Loc	:	Albion, N	lichigan	Drille	McCupty Puc	1
	R&R Rep	Date	: 10	723	- 92		Bromley / Kruk	
	Client Rep:	Rig#	:(CME 750	I CHE 75A		Doc Mik	i e
	DESCRIPTION	דואט	Level D	Level C	COMMEN	NTS	TIME L	og
抓	Well development / mw-1 (230 mw-2) 25 - 7-5	hr. 5			7			
.,,,	4" Protective Casing with	62.7	-		2 PAGS	•		
	3'x 3' x 4' Pad	1	.]		1 Droc	A5=1	1	
	6 Ft Steel Post, 2°x2°	ca.					/	
	Drilled & Concrete Set					U	,	•
	Screen: 2" PVC, SCH 40	ca.	,					
	(Installed 10' Screen)							
	Screen: 2" PVC, SCH 40	ca.						
	(Installed 5' Screen)							
	Screen: 2° PVC, SCH 40	ca.						
	(3 ft. long material only)	/						
	Riser: 2" PVC, SCH 40	ft. /						
	(material only)					· · · · · · · · · · · · · · · · · · ·		
	Riser: 2° PVC, SCH 40	St.						
	(Installed)			3.3				
	Locking Caps: 2" PVC, SCH 40	e3.					·	
	(Includes Master Lock)	/						
	Riser: 6' PVC, SCH 80	St.]					
	(Installed)							
	Backfill: 4-1/4" H.S.A. Grout in well annulas	8)~]					
	(Cement & powdered bentonite)	677						
	Backfill: Bedrock Wells Grout in well annulas	ft.						
	(Cement & powdered bentonite)							
	Well Abandonment	ft.						
	(Cement & powdered bentonite)						I	
	Boring Abandonment	ft.						
	(Cement & powdered bentonite)	1						
	Sand (80 lbs)	11.						
	(In overburden wells)						•	*
	Sand (80 lbs)	ft.						
	(In Bedrock Wells)							
	Sand (80 lbs)	bag						
	(Material Only)							
	And the second s							



Project	Well Installation	No	:		004146	Borin	g#:		
Client	ww engineering	Loc	<u>:</u>	Albion, h	lichigan	Drilla	McCurdy Pucci		
R&R Rep		Date	: 10	-23-	72	_	Bromley / Krukow		
Client Rep):	Rig #	:(CME 750	PCME 75A	7	oe M. Ka		
DESCR	RIPTION	UNIT	Level D	Level C	COMMEN	ITS	TIME LOG		
Benionite Pel		Pail.							
Out of Town		days		ļ					
Out of Town	Charges.	100,3							
17H 55 Gallor	n Drums	ca.							
Standby Time		hr.							
Comments:	water the	uli	~		I				
5#	KRETC - 1	7 6	300	5		·			
Portland & Baza									
	-		0						
									



Project	Well Installation	_ No	<u>:</u>	-	OC4146	Boring	#: MW35/3	
Client	WW ENGINEERING	Loc	<u>•</u>	Albion,	Michigan	DrillMo	Curdy./ Pucci	
R&R Rep	: Jan All	Date	: 10-1	<u>15-52</u>		. / —	omley / Krukow	
Client Re	p: Pathei Collon	_ Rig #	<u>.</u>	CME 75	0 (CME 75A	Helper Helper	(3/)	
DESC	RIPTION	UNIT	Level D	Level C	COMMEN	ITS	TIME LOG	
Mobilization of Drill Rig	and Demobilization	ea.	0			1.393	art 7C/ Cleffshop	
Augering, 4- (No Samples		ft.					00 <u>set ens</u> Truck axachis	4
Augering, 8- (No Samples		ft.				7:0	occide cf fines Stopping on way	/"
Augering, 4- w/ 2.5' and 5	-1/4 H.S.A ' c/c S.S. Samples	ft.	\bigcirc			9.76	Missed Exit	
Augering, 4-w/cont. S.S.		ft.	0			9.4	ns Arrive site	
Augering, 8-w/cont. S.S.		ft.	0			10	-002Make Graten 1 Cet Muterials	U/)
Split Spoon	Samples (3")	ea.				11	-00 <u>70 -24 Mod</u> esi on MW35K3,	'ns
Shelby tubes	, 3" Dia.	ea.				12	::0 0	
Sample Jars		dz.	(3)			H: 32	UNCH om:// <i>///</i> //To;//237	
Coring, NX	or NXWL	ft.				1	125 Finish set	
Air Rotary, (No Sample)	•	ft.				2:1	On Drain TANKOV	
Packer Testi	ng	hr.				3:0	of the supply	-/),
Wooden Bo	xes, NX or NXWL	ea.				4:0	Clean up.	. , ,
Vertical Gro 4.25"H.S.A.	oundwater Sampling throgh	ea.				5:0	00	
Vertical Gro Bedrock cor	oundwater Sampling through ehole	ea.			:	6:0	00	
Reaming: N	X 10 5 – 7/8	ft.				Er	nd 200	
Rig and Equ	ipment Decontamination	ea.						



Project Well Installation	No			004/46	Bori	ng#:MW35B
Client <u>wwengineering</u>	Loc	:	Albion, M	lichigan	Drill	McCurdy/ Pucci
R&R Rep:	Date	: 10-	19-92		Dril	Bromley / Krukow
Client Rep: Cather Cotton	Rig #	·	CME 750	/ CME 75A		lper-Disser lper-Bob
DESCRIPTION	UNIT	S Level D	Level C	COMMEN		TIME LOG
Well development	hr.					
4" Protective Casing with	ea.					
3'x 3' x 4" Pad	<u> </u>					
6 Ft. Steel Post, 2"x2"	ea.					
Drilled & Concrete Set	<u> </u>					j
Screen: 2" PVC, SCH 40	ea.					
(Installed 10' Screen)	<u> </u>					
Screen: 2" PVC, SCH 40	ea.					
(Installed 5' Screen)						
Screen: 2" PVC, SCH 40	ea.	1				
(3 ft. long material only)		$ \bigcirc\rangle$				
Riser: 2" PVC, SCH 40	ft.					
(material only)		5				
Riser: 2" PVC, SCH 40	ft.					
(Installed)	1					
Locking Caps: 2" PVC, SCH 40	ea.					
(Includes Master Lock)	1					
Riser: 6" PVC, SCH 80	ft.					
(Installed)						
Backfill: 4-1/4" H.S.A. Grout in well annulas	ft.					
(Cement & powdered bentonite)						
Backfill: Bedrock Wells Grout in well annulas	ft.					
(Cement & powdered bentonite)						
Well Abandonment	ft.	1				
(Cement & powdered bentonite)	1					
Boring Abandonment	ft.					-
(Cement & powdered bentonite)					ĺ	
Sand (80 lbs)	ft.					
(In overburden wells)		(
Sand (80 lbs)	ft.					
(In Bedrock Wells)	"				.	
Sand (80 lbs)	bag				——	
(Material Only)	1	(\hat{C})				



Project Well Installation	No	:	-	004146	Borin	ng#:1116035/3
Client <u>www.engineering</u>	Loc	<u>:</u>	Albion, N	Michigan	Drille	McCurdy / Pucci
R&R Rep: Part Mill	Date	: 10	-/5-9	2	Dŗil,l	Bromley / Krukow
Client Rep: Cather Cottan	Rig #	#:	CME 750	CME 75A	Helpi	er-Wizzer per-Psh
DESCRIPTION	UNIT	Level I	Level C	COMMEN	ITS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.					
Out of Town Charges	days					
17H 55 Gallon Drums	ea.					
Standby Time	hr.	0				
Comments: Lisater HAL	ا	for g	routir	na (not	rotara	y drilling)
		O				
		· · · · · · · · · · · · · · · · · · ·				



Well Installation	No	<u> </u>	-	OC4/140	Boring #: Mw3 8k3
WW ENGINEERING	Loc	<u>:</u>	Albion,	Michigan	DrilleMcCurdy / Pucci
: Januar HIT W.	Date	: 10	-01-5		Dril Bromley / Krukow
: Cother Cotton	Rig#	·:	CME 75	0 CME 75 A	Helper-Wisser Helper-Bob
IPTION	UNIT	Level I	Level C	COMMEN	
nd Demobilization	ea.	1			Start TCO Hick up purpo Haze 6:00 At Decor
		1(_/_			Hick up pair of Haz
1/4" H.S.A.	ft.				6:00
					1000 up MAterial
1/4" H.S.A.	ft.				7:00 to make parts for
1/4 H.S.A	ft.				8:00 Finish Pris.
c/c S.S. Samples					fut suize block
1/4 H.S.A	ft.	1			9:00 togother + low equ
amples					- te develop
1/4 H.S.A	ft.			. 	19:00
amples					1200 5tont Vevelop
amples (3")	ea.				11:00 MW 3513
3" Dia.	ea.				12:60
	đz.				LUNCH
NINI	<u></u>	1	2000 000 000 000 000 000 000 000 000 00	<u>-</u>	From: //3c To: /2co /co /co /co /co /co /co /co /co /co /
NXWL	It.				1:00 Sive clien + line t
-7/8" bit	ft.				their pump. Put
·		1()			2:00 cur suns tosethe
g	hr.	$\overline{\left(\right)}$			2:00 cur sumo tos the 200 start Develop 3:00 MW3568
s, NX or NXWL	ea.				4.00 Dung work of sole
ndwater Sampling through	ea.	10		1	In THILE
				.	5.00 Antifico de es cuiso
ndwater Sampling through	ea.	1	7.555345		CleAn up
•	-			. 	6:00
	ft	+			
100 1/0	1	10		.	End SCC
oment Decontamination	ea.	()			
	WW ENGINEERING CATHELL Attach CIPTION Ind Demobilization I/4" H.S.A. I/4" H.S.A. I/4 H.S.A C/c S.S. Samples I/4 H.S.A amples I/4 H.S.A	WW ENGINEERING Loc The Addition Date Rig # AIPTION UNIT and Demobilization ea. 1/4" H.S.A. ft. 1/4 H.S.A ft. 1/4 H.S.A ft. 1/4 H.S.A ft. 1/4 H.S.A ft. 2/5 S.S. Samples 1/4 H.S.A ft. amples 1/4	WW ENGINEERING Loc: Date: /C	WW ENGINEERING Loc: Albion, Date: /C-9/-9. Rig #: CME 75 C	WW ENGINEERING Date: /C'-9/-52 Rig #: CME 750 CME 75A IPTION UNITS Level D Level C COMMEN Ind Demobilization ea. I/4" H.S.A. I/4" H.S.A. I/4 H.S.A I/4 H.S.A



Project Well Installation	No			004146	Roun	1g#://((ひさびな
Client <u>ww-engineering</u>	Loc	:	Albion, N	Michigan	Drille	McCurdy / Pucci
R&R Rep:	Date	: 10	-21-5.	7	Dril I	Bromley / Krukow
Client Rep: Contra Patter	Rig#	•	CME 750) (CME 75A	• ' '	leber - Disser elper - Bob
DESCRIPTION	UNIT	Level D	Level C	COMMEN	TS	TIME LOG
Well development	hr.	Н				
4" Protective Casing with	ea.					
-3'x 3' x 4" Pad						
6 Ft. Steel Post, 2"x2"	ea.					
Drilled & Concrete Set		(7				
Screen: 2" PVC, SCH 40	ea.	<u></u>				·
(Installed 10' Screen)						
Screen: 2" PVC, SCH 40	ea.					
(Installed 5' Screen)						
Screen: 2" PVC, SCH 40	ea.					
(3 ft. long material only)		(C)				
Riser: 2" PVC, SCH 40	ft.					
(material only)						
Riser: 2" PVC, SCH 40	ft.					
(Installed)						
Locking Caps: 2" PVC, SCH 40	ea.					
(Includes Master Lock)		[
Riser: 6" PVC, SCH 80	ft.					
(Installed)						
Backfill: 4-1/4" H.S.A. Grout in well annulas	ft.					
(Cement & powdered bentonite)						
Backfill: Bedrock Wells Grout in well annulas	ft.	C				
(Cement & powdered bentonite)						
Well Abandonment	ft.					
(Cement & powdered bentonite)		(3)_				
Boring Abandonment	ft.					
(Cement & powdered bentonite)					i	•
Sand (80 lbs)	ft.					i
(In overburden wells)		1 3 m				
Sand (80 lbs)	ft.					
(In Bedrock Wells)	<u> </u>					
Sand (80 lbs)	bag					
(Material Only)	1	()				



Project	Well Installation	No	•		04146	Borin	ig#: Mw3SB
Client	WW ENGINEERING	Løć	:	Albion, M	lichigan	Drille	McCurdy / Pucci
R&R Rep		Date	: 10	-21-93		,	Bromley / Krukow
Client Rep	: Cathe Cotton	Rig#	<u></u>	CME 750	/ CME 75A	He	lper - Visser lper - Beb
DESCR	IPTION	UNITS	Level D	Level C	COMMEN	TS	TIME LOG
Bentonite Pell	ets (50 lbs)	Pail.	0				
Out of Town (Charges	days	1				
17H 55 Gallor	n Drums	ea.	\overline{C}				
Standby Time		hr.	\bigcirc				
Comments:					***************************************		
					·		
				·			



DAILY PRODUCTION RECORDS

						MILLER	
Project Well Installation	No	:	-	004/46	Borin	MW4SB ng#: MWASB	-
Client WW ENGINEERING	Loc	:	Albion, N	Aichigan	Drille	McCurdy / Pucci	
R&R Rep:	Date	: 10-5	00-92	·		Bromley / Krukow	_ ,
Client Rep: Cothe Cotton	Rig#	<u></u>	CME 750	CME 75A		her - Hisser her - Bib	
DESCRIPTION	UNIT	Level I	Level C	COMMEN	ITS	TIME LOG]
Mobilization and Demobilization	ea.					Start 700	1
of Drill Rig						Col Bumps+1	ose.
Augering, 4-1/4" H.S.A.	ft.	1-				6:00 cent + Della is	11 .
(No Samples))		1		700 in chemistano	le-
Augering, 8-1/4" H.S.A.	ft.					7.00 Gal Lyck 200	ز ملی با
(No Samples)				1		1000 tuck at MW.	188
Augering, 4–1/4 H.S.A	ft.					8:00 Dozer pulled	
w/ 2.5' and 5' c/c S.S. Samples]					out Rick wa	1772
Augering, 4-1/4 H.S.A	ft.			<u> </u>		9:00 MWH3B Chou	116. ~
w/cont. S.S. Samples	1					first Tires	
Augering, 8-1/4 H.S.A	ft.		0.00 00 00 00 00 00 00 00 00 00 00 00 00			10:00 = 10 wher () 14	
w/cont. S.S. Samples	1				.	take the to	210
	ea.						1
Split Spoon Samples (3")	ca.	(3)				11:00 readired	L
Shallousukaa 2F Dia	ea.					1040 BACKAT SIT	1
Shelby tubes, 3" Dia.	ea.					12:00 put thean	1
Comple Inc	dz.	 \				LUNCH	
Sample Jars	UZ.	(İ	From: \\COTo: \\3C;	1
Code NV on NVVIII	ft.		0.520 sec. (20) 0.025 f se Yeyk.			7=4 up + 9 nov	1
Coring, NX or NXWL	11.	-					
A*- To			1886 - SERVER			1:00 MW45B	1+2
Air Rotary, 5-7/8" bit	ft.	1				130 Finizh 3.80	
(No Sample)		-				2:00 set Pro casi	
Packer Testing	hr.	77			J	IMS STALT SET	12 40
	- -					3:00 grant MW25	13.
Wooden Boxes, NX or NXWL	ea.	(3)				330 Finish Stour	# +
						4:00 SC+ Procarly	k
Vertical Groundwater Sampling throgh	ea.					Clean chain	から
4.25"H.S.A.	<u> </u>					5:00 + 4 cuil]
Vertical Groundwater Sampling through	ea.				. [#
Bedrock corehole						6:00	
Reaming: NX to 5-7/8	ft.				1		
						End	
Rig and Equipment Decontamination	ea.						1
		I()		ļ	Ì]



Project	Well Installation	No			004146	Bori	/パレみSIS ng #: /ハル おS <i>I</i> S
Client	www engineering	Loc	:	Albion, M	lichigan	Dri _l i	McCurdy / Pucci
R&R Rep	o:) round fill.	Date	: 10	-30 -Sã	?		Bromley / Krukow
Client Re	P: Pathe Cotten	Rig#:		CME 750	/ CME 75A	Help	her-Bob
DESC	RIPTION	UNITS	Level D	Level C	COMMEN	ITS	TIME LOG
Well develop		hr.					
4" Protective	Casing with	ea.					
3'x 3' x 4" Pa	d	1			. 		
6 Ft. Steel Po	ost, 2"x2"	ea.					
Drilled & Co	oncrete Set						
Screen: 2" P'	VC, SCH 40	ea.					
(Installed 10	'Screen)						
Screen: 2" P	•	ea.					
(Installed 5'							
Screen: 2" P	VC, SCH 40	ea.					
(3 ft. long m			(_)		_ 		
Riser: 2" PV	C, SCH 40	ft.					·
(material on	ly)		\bigcirc				
Riser: 2" PV	C, SCH 40	ft.					
(Installed)		<u> </u>	()				
Locking Cap	os: 2" PVC, SCH 40	ea.					·
(Includes Ma	aster Lock)						
Riser: 6" PV	C, SCH 80	ft.					
(Installed)							
Backfill: 4-1	1/4" H.S.A. Grout in well annulas	ft.					
(Cement & p	powdered bentonite)	<u> </u>					
Backfill: Bed	Irock Wells Grout in well annulas	ft.	۲.				
(Cement & J	powdered bentonite)		103.5				
Well Abando	onment	ft.					
(Cement & p	oowdered bentonite)						
Boring Aban	ndonment	ft.					
(Cement & p	nowdered bentonite)						
Sand (80 lbs))	ft.					
(In overburd	en wells)						
Sand (80 lbs))	ft.					•
(In Bedrock	Wells)					· · · ·	
Sand (80 lbs))	bag	20				
(Material Or	nly)					:	



Project Well Installation	No	<u></u>		204146	Borin	1g#:11W2SB	
Client WWENGINEERING	Loc	<u>:</u>	Albion, M	lichigan	Drille	McCurdy / Pucci	
R&R Rep: Mary Still.	Date	: <u>/o-</u> 5	Bromley / Krukow				
Client Rep: Pathu: Cotto	Rig #: CME 750 (CME 75A) Helper Bo						
DESCRIPTION	UNIT	S Level D	Level C	COMMEN	TS	TIME LOG	
Bentonite Pellets (50 lbs)	Pail.					,	
Out of Town Charges	days	1					
17H 55 Gallon Drums	ea.	(2)					
Standby Time	hr.						
Comments:							
	•			-			



Project Well Installation	_ No :	a oc	Bori	ng#://///
Client <u>wwengineering</u>	_ Loc :	Albion, Mic	higan Dril	loMcCurdy Pucci
R&R Rep :	Date <u>:</u>	11-10 -	12 Dril	Bromley / Krukow
Client Rep: Un Colmons www	ÆRig#:	CME 750)	CME 75A	Joe Mike
DESCRIPTION	UNITS Leve	el D Level C	COMMENTS	TIME LOG
Mobilization and Demobilization	ea.			Start 3
of Drill Rig			<u> </u>	
Augering, 4-1/4" H.S.A.	ft.	7.45.55		6:00
(No Samples)			· · · · · · · · · · · · · · · · · · ·	
Augering, 8-1/4" H.S.A.	ft.			7500 S/An/BX
(No Samples)			<u> </u>	
Augering, 4-1/4 H.S.A	ft.			2360 STAN/SX 830 MIVE TO MW-2 9:00 STANT, DN. LL
w/ 2.5' and 5' c/c S.S. Samples			·.	STANT PALL
Augering, 4-1/4 H.S.A 35°	12/			9:00
w/ cont. S.S. Samples	123		<u></u>]
Augering, 8-1/4 H.S.A	ft.		•	10:00
w/ cont. S.S. Samples				
Split Spoon Samples (3") 3	63.5			11:06-raytru
Shelby tubes, 3" Dia.	ea.		·	12:00
Sample Jars	dz		:	LUNCH 36,00 From: 12 To
Coring, NX or NXWL	ft.			1:00 Stand by
Air Rotary, 5-7/8" bit	ft.			
(No Sample)		7.	PAAC SACKATE	2:00 3×3 Pal My, (
Packer Testing	hr.			2:00 3 × 3 PA J MW 6 230 buy more SACK(N=)
Wooden Boxes, NX or NXWL	ea.	6	Bojssnakret	3:00 3 X 3 PAJ MO 2:50
Vertical Groundwater Sampling throgh 4.25"H.S.A.	ea.			5:00
Vertical Groundwater Sampling through Bedrock corehole	ea.			6:00
Reaming: NX to 5-7/8	ft.			End
Rig and Equipment Decontamination	e		· · · · ·	



Project	Well Installation	140			004146	POLI	ng #: ///	W	<u> </u>
Client	WW ENGINEERING	Loc	<u>:</u>	Albion,	Michigan	Drill	McCurdy	Pucci	
R&R Rep	:	Date	: //-	10 -	92	Dril	Bromley/	Krukow	
Client Re	p: Non Johnson we	sRig#	:	CME 75	0 CME 75A		Joe	M.Ke	_
DESCI	RIPTION	UNIT	Level D	Level C	COMMEN	TS	TIM	E LOG	
Well develop	والمستر والمسترون والمسترو	hr.						 	
4" Protective	Casing with	eag							
3'x 3' x 4" Pad	1	X	1			•			
6 Ft. Steel Po	st, 2"x2"	ea.		22.00 AT					
Drilled & Co	ncrete Set					•			
Screen: 2" PV	C, SCH 40	ea.							
(Installed 10'	Screen)		<u> </u>					. •	
Screen: 2" PV	C, SCH 40 /	ea	1						
(Installed 5' S	Screen) 5	5			<u> </u>	· .		•••	
Screen: 2" PV	'C, SCH 40 /	ea.			,				
(3 ft. long ma	terial only)								
Riser: 2" PVC	C, SCH 40	ft.					, ,		
(material only	y)		1						
Riser: 2" PVC		(man)							
(Installed)	30]50							
Locking Caps	: 2" PVC, SCH 40 /	ea.						· · · · · ·	
(Includes Ma:	ster Lock)	/				.	15 A447	and the second	
Riser: 6" PVC	C, SCH 80	ft.							.,
(Installed)									
Backfill: 4-1	/4" H.S.A. Grout in well annulas	fly ~~	/				-, /		•
(Cement & po	owdered bentonite) -25	P/O			& BAgs >	Porl	AND		
Backfill: Bedr	ock Wells Grout in well annulas	ft.							
(Cement & po	owdered bentonite)				·				•
Well Abandon	nment	ft.							
(Cement & po	owdered bentonite)								
Boring Aband	ionment	ft.							
(Cement & po	owdered bentonite)		ارا			-			. •
Sand (80 lbs)	1	fi							
(In overburde	n wells))						
Sand (80 lbs)	-	fi.							
(In Bedrock V	Vells)								
Sand (80 lbs)		bag							
(Material Onl	(v)	1							



Project	Well Installation	No	: :		204146	Borin	ng#: MU) 2 -5
Client	ww engineering	Loc	<u></u>	Albion, M			McCurdy/Pucci
R&R Rep		Date	: 11	-10-	-92	Dril l	Bromley / Krukow
Client Rep	o: Non Johnson-wwee	Rig#	:	СМЕ 750	ICME 75A	Ċ	Joe M. Ke
DESCH	RIPTION	UNIT	Level D	Level C	COMMEN	ITS	TIME LOG
Bentonite Pel	lets (50 lbs)	Pail.			<u></u>	·	
Out of Town	Charges	days					
17H 55 Gallo	n Drums	ea.					
Standby Time		hrg	200]	
Comments:	13 BAGS	SH	icka	cte	Toda	<i>y</i>	
<u> </u>					<i></i>		
	4 2402	Loc	1/5	on	GATE	5 d	100
· 		·					()



Project Well Installation	No	:	-	004/146	Bori	ng#:
Client <u>wwengineering</u>	Loc	<u>.</u>	Albion,	Michigan	Drill	McCurdy Pucci
R&R Rep:	Date	e : _ <i>j]</i>	-11-	93	Dril	Bromley / Krukow
Client Rep: Don Johnson-wwe		•		0 / CME 75A		Joe Mike
DESCRIPTION	UNI	TS Level I	Level C	COMMEN	TS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea.					Start
Augering, $4-1/4$ ° H.S.A. $\frac{35}{5}$ (No Samples)	1900	2				6:00
Augering, 8-1/4" H.S.A. 100 (No Samples)	ft.					7:00
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft.					8:00Mb02To MW.5-5
Augering, 4-1/4 H.S.A w/cont. S.S. Samples	ft.					9:85 will supples water 10:00 gettingwell
Augering, 8-1/4 H.S.A w/cont. S.S. Samples	ft.	1		·	•	10:00 Soff. 20 0 0 0
Split Spoon Samples (3")	ea.					11:00 GrouTing
Shelby tubes, 3" Dia.	ea.					Mobito Decon
Sample Jars	dz					LUNCH 30 To:
Coring, NX or NXWL	ft.					
Air Rotary, 5-7/8" bit (No Sample)	ft.			Mike 3131 on MWS	7.5G	1:00 Decon Move To Bovery 2:00
Packer Testing	hr.	/ .				2:00 Charge Rig, Augers 3:0078 Crooked To Dr
Wooden Boxes, NX or NXWL	ea.					With 750. Deep Bone.
Vertical Groundwater Sampling throgh 4.25"H.S.A.	ea./					Move Rig STANT 5:00 Dr. LL
Vertical Groundwater Sampling through Bedrock corehole	ea.				<u> </u>	6:00
Reaming: NX to 5-7/8	ft.					End
Rig and Equipment Decontamination	ea.					



Project Well Installation	No	: -		004/46	Borin	ıg#:/ ^{-/}
Client WW ENGINEERING	Loc	<u>.</u>	Albion, N	Aichigan	Drille	McCurdy (Pucci)
R&R Rep:	Date	<u> </u>	1-11-	92	Dril l	Bromley / Krukow
Client Rep: Don Janson-ww	Rig#	:(CME 750	6/ CME 75A		Doe mike
DESCRIPTION	UNIT	Level D	Level C	COMMEN	TS	TIME LOG
Well development	hr.					
	/_	·				• • • • • • • • • • • • • • • • • • • •
4" Protective Casing with	ea.					
3'x 3' x 4" Pad		<u> </u>				
6 Ft. Steel Post, 2"x2"	ea.				:	
Drilled & Concrete Set	00/		384798797911 384798797911			
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.					
Screen: 2" PVC, SCH 40	ea.	 -				
(Installed 5' Screen)	Ca.	ļ ·				
Screen: 2" PVC, SCH 40	ea.	 				
(3 ft. long material only)						
Riser: 2" PVC, SCH 40	ft.					
(material only)		1			·	
Riser: 2" PVC, SCH 40 18	40					
(Installed)	40				<u> </u>	
Locking Caps: 2" PVC, SCH 40	ea.	Pio				
(Includes Master Lock)	1	F899.				
Riser: 6" PVC, SCH 80	ft.					
(Installed)		/			-	
Backfill: 4-1/4" H.S.A. Grout in well annulas	ft &			·		.* ,
(Cement & powdered bentonite) (8)	1/0					
Backfill: Bedrock Wells Grout in well annulas	ft.	1				
(Cement & powdered bentonite)	/_	ļ				
Well Abandonment	ft.					
(Cement & powdered bentonite)	//	ļ				
Boring Abandonment	ft.					
(Cement & powdered bentonite)	/	ļ				
Sand (80 lbs)	ft Q					
(In overburden wells)	10,	<u> </u>				
Sand (80 lbs)	ft.					
(In Bedrock Wells)		 			· ·	
Sand (80 lbs)	bag					
(Material Only)	0	<u> </u>	Adapt (L <u> </u>		



Project	Well Installation	_ No :		204146	Borin	ng #:
Client	ww engineering	Loc :	Albion, M	lichigan	Drille	McCurdy Pucci
R&R Rep	· :	Date :	11-11-	92	Dril l	Bromley / Krukow
Client Re	p: Don Phrom	_ Rig #:	CME 750	I ME 75A		Joe Mike
DESCI	RIPTION	UNITS Lev	el D Level C	COMME	VTS	TIME LOG
Bentonite Pe	llets (50 lbs)	Pail				
Out of Town	Charges	days				
17H 55 Gallo	on Drums	ea.				
Standby Time	3	hr/2				
Comments:	wanter Hr	7 u) in	\mathcal{I}			
· · · · · · · · · · · · · · · · · · ·	7 BA95 F	Portdon	d		· .	
	4 BA15.	SACKNE	te	•	٠	
	· O					
		······································				



Project	wen instanation	_ 140	<u> </u>	-	DC4/140	POLI	11g#: 1/100 6013
Client	WW ENGINEERING	Loc	<u>:</u>	Albion, M	lichigan	Dri	McCurdy / Pucci
R&R Rep	: Janus BIIII.	Date	: 11-6	-92	·		Bromley / Krukow
Client Re	p: Don Johnson - www.	ERig#	<u>.</u>	CME 750	CME 75A		telper-Disser telper-Bob
DESC	RIPTION	UNITS	Level I	Level C	COMMEN	ITS	TIME LOG
Mobilization of Drill Rig	and Demobilization	ea.					Start 100 1000 Drumpt Pu
Augering, 4- (No Samples		ft.					Start Develop
Augering, 8- (No Samples	-1/4" H.S.A.	ft.					Au sollet Port
Augering, 4-		ft.					8:00 + MASTIC DO COLO
Augering, 4-w/ cont. S.S.	-1/4 H.S.A	ft.					9:00
Augering, 8-w/ cont. S.S.	-1/4 H.S.A	ft.					10-00 June 1
Split Spoon S		ea.				-	10:00 Finish Develop Dump under 11:00 Teffsite
Shelby tubes,	, 3° Día.	ea.					12:00
Sample Jars		dz.				÷.	LUNCH From: To:
Coring, NX o	or NXWL	ft.					1:00
Air Rotary, 5 (No Sample)	•	ft.					2:00
Packer Testin	ng	hr.					3:00
Wooden Box	es, NX or NXWL	ea.				L	4:00
Vertical Gro 4.25"H.S.A.	undwater Sampling throgh	ea.				•	5:00
Vertical Gro Bedrock core	undwater Sampling through chole	ea.					6:00
Reaming: N	C to 5-7/8	ft.					End
Rig and Equi	ipment Decontamination	ea.					
							



Project	Well Installation	No	<u> </u>		004/46	Bori	ng#: MWGSB
Client	WW ENGINEERING	Loc	•	Albion, l	Michigan	Drill	McCurdy / Pucci
R&R Rep	$\langle \cdot \rangle = \langle -111 \rangle$	Date	· 11/	.en		Drill	Bromley / Krukow
nan nop	· Miner XIIIV	Date	:	<u> </u>			
Client Rep	: Un Johnson-wwes	Rig#		CME 75	/ CME 75A	H	lelper - Disger Lelper - Bob
DESCR	RIPTION	UNITS	Level D	Level C	COMMEN	TS	TIME LOG
Well develop	ment	hr.	ہے			, description of the second	
•		j	2.5				
4" Protective	Casing with	ea.					
3'x 3' x 4" Pad		-					
6 Ft. Steel Pos	st, 2"x2"	ea.					
Drilled & Con	ncrete Set				∭		
Screen: 2" PV	C, SCH 40	ea.					·
(Installed 10'	Screen)				 		
Screen: 2" PV	C, SCH 40	ea.					
(Installed 5' S	creen)					•	
Screen: 2" PV	C, SCH 40	ea.					
(3 ft. long mat	terial only)						,
Riser: 2" PVC	C, SCH 40	ft.					
(material only	')						
Riser: 2" PVC	C, SCH 40	ft.					
(Installed)					:		
Locking Caps	: 2" PVC, SCH 40	ea.					
(Includes Mas	ster Lock)						
Riser: 6" PVC	C, SCH 80	ft.				··	
(Installed)					:		
Backfill: 4-1/	4" H.S.A. Grout in well annulas	ft.					
(Cement & po	owdered bentonite)						
Backfill: Bedr	ock Wells Grout in well annulas	ft.					
(Cement & po	owdered bentonite)						
Well Abandon		ft.					
(Cement & po	owdered bentonite)						
Boring Aband		ft.				-	
_	owdered bentonite)						
Sand (80 lbs)		ft.					
(In overburde	n wells)	}					
Sand (80 lbs)		ft.					
(In Bedrock V	Vells)						
Sand (80 lbs)		bag					
(Material Onl	y)						



Project	Well Installation	No	<u> </u>		204146	Borin	ig#: MWGSB
Client	WW ENGINEERING	Loc	<u>:</u>	Albion, N	lichigan	Drille	McCurdy / Pucci
R&R Rep		Date	:	1-6-92			Bromley / Krukow
Client Rep: Don Johns - WWES Rig #: CME 750/CME 75A /Helper - Bob							
DESCR	RIPTION	UNIT	S Level D	Level C	COMMEN	ITS	TIME LOG
Bentonite Pel	lets (50 lbs)	Pail.					
Out of Town	Charges	days					
17H 55 Gallon	n Drums	ea.					
Standby Time		hr.					
Comments:							
				·		· · · · · · · · · · · · · · · · · · ·	
		·			-		



Project Well Installation	_ No	: 2	OC4/146	Boring #: M(1) - 3 000
Client WW ENGINEERING	_ Loc	: Albion,	Michigan	DrilleMcCurdy Pucci
R&R Rep :	_ Date	11-16		Dril Bromley / Krukow
Client Rep: Dan John -wwe	<u>:5</u> Rig #:	: CME 75	OVCME 75A	De M. Ke
DESCRIPTION	עאודפ	Level D Level C	COMMEN	TIME LOG
Mobilization and Demobilization	ea.			Start
of Drill Rig				
Augering, 4-1/4" H.S.A.	ft _y			6:00
(No Samples)	60			
Augering, 8-1/4" H.S.A.	ft.			7:00 TrAU-
(No Samples)				
Augering, 4-1/4 H.S.A	ft.			8:00
w/ 2.5' and 5' c/c S.S. Samples				
Augering, 4-1/4 H.S.A	ft.			9:00
w/ cont. S.S. Samples				
Augering, 8-1/4 H.S.A	ft.			10:00
w/ cont. S.S. Samples				
Split Spoon Samples (3")	ea.			11:00
Shelby tubes, 3" Dia.	ea.			12:00 Move Ra 2 Dover
Sample Jars	dz			LUNCH From: 1 30
Coring, NX or NXWL	ft.			LUNCH From: 100 To: 130
Air Rotary, 5-7/8" bit	ft.			
(No Sample)	/			2:00
Packer Testing	hr. ^		<u>.</u>	
Tacker resumg				3:90 5-17-4 05-6
Wooden Boxes, NX or NXWL	ea.			3.90 3.5 1.17 0.5
Wooden Boxes, TAR of TARTIE		建设在 型		4:00
Vertical Groundwater Sampling throgh	ea.			
4.25°H.S.A.				5:60
Vertical Groundwater Sampling through	ea. /		·	
Bedrock corehole				6:00
Reaming: NX to 5-7/8	ft.	**************************************	······································	0.00
1.05.marg. 1.75 to 3 = 7/0				End
Rig and Equipment Decontamination	ea_			



	Project	Well Installation	No	<u> </u>		004146	Bori	ng #:/// \() - 4 - 10 / (2
	Client	ww engineering	Loc	:	Albion, l	Michigan	Dril	McCurdy Pucci	_
	R&R Rep	;	Date	:	11-16	-95	Dril	Bromley / Krukow	
ı	Client Rep	: Un Johnson wwes	Rig #	#: <u></u>	CME 750	O CME 75A		Joe M. Ke	_
	DESCR	RIPTION	דואט	S Leve	Devel C	COMMEN	NTS	TIME LOG	٦
	Well develops	set well	hr.						=
	4" Protective C		eă.	1	100				
	3'x 3' x 4" Pad			<u>l_, </u>					
	6 FL Steel Pos	st, 2"x2"	ea.	1]	
	Drilled & Con	ncrete Set							
	Screen: 2" PV	C, SCH 40	ea.						
	(Installed 10'	Screen)							
	Screen: 2" PV	C, SCH 40	ea.	1				·	
	(Installed 5' So								
	Screen: 2* PV	C, SCH 40	ea.						
	(3 ft long mat			1					
	Riser: 2" PVC	, SCH 40	fi.	1					
	(material only))		<u>}</u>	\$1.50 mg				
	Riser: 2" PVC	, SCH 40	(رسلوا						
	(Installed)		<u>108</u>		主要表现				
	Locking Caps:	: 2* PVC, SCH 40	ea.		\$\$ \$ 10.55 \$20252557				
	(Includes Mass	ter Lock)							
	Riser: 6" PVC,	,SCH 80	ft.	-	13.0000				
	(Installed)								
	Backfill: 4-1/4	H.S.A. Grout in well annulas	ft.						
	(Cement & por	wdered bentonite)							
	Backfill: Bedro	ock Wells Grout in well annulas	ft.	1					
	(Cement & por	wdered bentonite)		<u> </u>					
	Well Abandon	ment	ft.	1					
	(Cement & por	wdered bentonite)		1.					
	Boring Abando	onment	ft.	1	1 +4 (1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1				
	(Cement & por	wdered bentonite)					i		
	Sand (80 lbs)		37						
	(In overburden	wells)		}					
	Sand (80 lbs)		ft.	1	008.03685-03-00 83728-03-8038				
	(In Bedrock W	ells)							
	Sand (80 lbs)		bag		Alex (St.)				
	(Material Only)		1			.		



Project Well Installation	No :	= co414h	Boring #: //// -
Client www engineering	Loc :	Albion, Michigan	DrilleMcCurdy Pucci
R&R Rep:	Date : /	1-16-92	Dril Bromley / Krukow
Client Rep: Non Johnson - wwe	%Rig #:	CME 750 / CME 75A	Dr Mcke
DESCRIPTION	UNITS Level D	Level C COMME	NTS TIME LOG
Bentonite Pellets (50 lbs)	Pail		
Out of Town Charges	days		
17H 55 Gallon Drums	ea.		
Standby Time	hr.		
Comments:			
,			
·			



Project	Well Installation	No :	-	OCX/140	Boring #: /// // 2>
Client	WW ENGINEERING	_ Loc <u>:</u> _	Albion,)	Michigan	DrilleMcCurdy Pacci
R&R Rep	:	_ Date :_	11-17-	92	Dril Bromley / Krukow
Client Rep	: Lan Johnson		CME 759) CME 75A	Joe Mike
DESCR	IPTION	UNITEL	evel D Level C	COMMEN	TIME LOG
	nd Demobilization	ea.	1: -: -		Start /66
of Drill Rig		1/			1
Augering, 4-1	1/4" H.S.A.	fly one			6:00
(No Samples)		45	$\mu = 5$		7 50
Augering, 8-1	1/4" H.S.A.	ft.		WAITON To	
(No Samples)				MAN AT GA	<u>76 </u>
Augering, 4-1	1/4 H.S.A	ft.			8:00
w/ 2.5' and 5' c	c/c S.S. Samples				
Augering, 4-1	1/4 H.S.A	ft. /			9:00
w/cont. S.S. Sa	amples				
Augering, 8-1	1/4 H.S.A	ft.			10:00 4 / /)
w/ cont. S.S. Sa	amples .				
Split Spoon Sa	mples (3")	ea.			11:00 - 1/21- 1 /2
Shelby tubes, 3	Dia.	ea.		* * * * * * * * * * * * * * * * * * * *	12:00
Sample Jars		dz			LUNCH From:/ To:/
Coring, NX or	NXWL	ft.		9 ReDi	H III
Air Rotary, 5–	7/0* his	ft.	84 FEARENCE	/ 1\C3/ji	h L 1500 52 100 10 2 2 1
An Rotary, 5— (No Sample)		"			2:00
Packer Testing		hr.			3:00
Wooden Boxes	, NX or NXWL	ea.			41090
Vertical Groun	dwater Sampling throgh	ea.			5:00
	dwater Sampling through	ea.			6:00
Reaming: NX 1		ft.			End
Rig and Equipr	nent Decontamination	ea.			



Project	Well Installation	No	:		004146	_ Bori	ng#:171 LC) 3 - S
Client	WW ENGINEERING	Loc	<u>:</u>	Albion, 1	Michigan	_ Drill	McCurdy Pucci
R&R Rep	:	Date	:	1-17	92	_ Dril	Bromley / Krukow
Client Rep	o: Lin Golvinen-ionis	,Rig#	:	CME 150	ME 75A	_	Joe Mike
DESCR	RIPTION	UNIT	Level D	Level C	СОММЕ	ENTS	TIME LOG
Well develops	nent	bre!		 			
5	Esing with	The	\star	,	HEAVING	1. SAN	y .
4" Protective (Casing with	lea.			- 4		
3'x 3' x 4" Pad					•./		
6 FL Steel Pos	st, 2"x2"	ea./					
Drilled & Cor	ncrete Set						
Screen: 2" PV	C, SCH 40	ea.					
(Installed 10'	Screen)	p//					
Screen: 2" PV	C, SCH 40	ea.			1		
(Installed 5' S	creen)	1 /					
Screen: 2" PV	C, SCH 40	ea.					
(3 ft. long mat	erial only)	/					·
Riser: 2" PVC	,SCH 40	ft.					
(material only)	/					
Riser: 2" PVC	,SCH 40	11.	dis .				
(Installed)		40					
Locking Caps	: 2* PVC, SCH 40	lea.,		\$ 42 5 15 9080 455			
(Includes Mas	ter Lock)	/					
Riser: 6" PVC	,SCH 80	ft.				-	
(Installed)							
Backfill: 4-1/-	H.S.A. Grout in well annulas	1					
(Cement & po	wdered bentonite)	20					
Backfill: Bedro	ock Wells Grout in well annulas	ft.					
(Cement & po	wdered bentonite)						
Well Abandon	ment	ft.					
(Cement & po	wdered bentonite)	/					
Boring Abande	onment	ft.					
(Cement & po	wdered bentonite)	./					
Sand (80 lbs)		fly /					
(In overburder	wells)						
Sand (80 lbs)		ft.	,				
(In Bedrock W	ells)	/			···		
Sand (SO lbs)		bag					
(Material Only) :						



Project	Well Installation	No			204146	Borin	1g#: MW 3-5		
Client	ww engineering	Loc		Albion, N	lichigan	Drille	McCurdy (Pucci		
R&R Rep	· <u>:</u>	Date :		-17-	92	Dril b	Bromley / Krukow		
Client Rej	p: Non Gehronium	Rig#:		CME 750	CME 75A		Joe Mike		
DESCI	RIPTION	UNITS	Level D	Level C	COMMEN	ITS	TIME LOG		
Bentonite Pel	llets (50 lbs)	Pail.							
Out of Town	Charges	days							
17H 55 Gallo	n Drums	ea.							
Standby Time	;	hr.							
Comments:	WATER HAI	Line	j J	5					
	18 BA95	Port	AND	- <u>-</u>					
	1 Bent. Powder								
	ReDrill 9 Hepveng spend								
				- 7	· · · · · · · · · · · · · · · · · · ·				



Project	Well Installation	No	<u>:</u>	-	OCH146	Boring #: MW 3 SG
Client	WW ENGINEERING	Loc	<u>:</u>	Albion,	Michigan	DrilleMcCurdy / Pucci
R&R Rep		Date	: t	1-18	-92	Dril Bromley / Krukow
Client Rep	: Um Johnsen - www.	Rig#	:	CME 75	OI CME 75A	Joe mike
DESCR	RIPTION	UNIT	S Level D	Level C	COMMEN	NTS TIME LOG
Mobilization a of Drill Rig	nd Demobilization	ea.				Start
Augering, 4-1 (No Samples)		52				6:00
Augering, 8-1 (No Samples)		ft.			14 BA93 12 PORT	
Augering, 4-1	1/4 H.S.A c/c S.S. Samples	ft.			26	8:00
Augering, 4-1 w/ cont. S.S. Sa		ft.				9:00 / a s = 72
Augering, 8-1 w/ cont. S.S. Sa		ft.				10:00
Split Spoon Sa		ea.				11:00
Shelby tubes, 3	S* Dia.	ea.				12:00
Sample Jars		dz			MIKE THUE	LUNCH To:
Coring, NX or	NXWL	ft.			0.5 (823	1:00 STANT MW-6W
Air Rotary, 5- (No Sample)	-7/8" bit	ft.				3.00 5. H. ~ ucl
Packer Testing		hr.			·	3:00
Wooden Boxes	s, NX or NXWL	ea./				4:00 (Frontier)
Vertical Groun 4.25°H.S.A.	ndwater Sampling throgh	ea.				5:00
Vertical Groun Bedrock coreho	ndwater Sampling through ole	ea.				6:00
Reaming: NX 1	10 5 – 7/8	ft.				End
Rig and Equipr	ment Decontamination	ea.				
		لسسالسين	الــــــا	·		



Project Well Installation	No	<u> </u>		004/46	Bori	ng#: /11 W 35
Client WW ENGINEERING	Loc	:	Albion, N	Aichigan	Drill	McCurdy Pucci
R&R Rep	Date	: 1	1-10-	92	Dril	Bromley / Krukow
Client Rep: Lon Johnson water	Rig#	:	CME 750	/CME 75A		Jue Mike
DESCRIPTION	דומט	Level I	Level C	COMMEN	TS	TIME LOG
Well development Setting well	hr. 2.5	 				
4" Protective Casing with 3'x 3' x 4" Pad	ea.					
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea.					
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.					
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea.					
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea.					
Riser: 2" PVC, SCH 40 (material only)	ft.					
Riser: 2" PVC, SCH 40 (Installed)	50					
Locking Caps: 2° PVC, SCH 40 (Includes Masser Lock)	ea.2					
Riser: 6° PVC, SCH 80 (Installed)	ft.	j.				
Backfill: 4-1/4" H.S.A. Grout in well annulas (Cement & powdered bentonite)	11					
Backfili: Bedrock Wells Grout in well annulas (Cement & powdered bentonite)	ft.					
Well Abandonment (Cement & powdered bentonite)	ft.					
Boring Abandonment (Cement & powdered bentonite)	ft.					
Sand (80 lbs) (In overburden wells)	st.7					
Sand (80 lbs) In Bedrock Wells)	ft.					
Sand (80 lbs) Majerial Only)	bag					••



Project	Well Installation	No		3	204146	Borin	ng#: MW3-5
Client	ww engineering	Loc	<u>:</u>	Albion, M	lichigan	Drille	McCurdy Pucci
R&R Rep	:	Date	:	M-18-	92	Dril l	Bromley / Krukow
Client Rep	: Don Johnson-wwes	Rig #	#: <u></u>	CME 750	VCME 75A	,7	see Mike
DESCR	RIPTION	רואט	S Leve	I D Level C	COMMEN	ITS	TIME LOG
Bentonite Pel	llets (50 lbs)	Pail.			v		
Out of Town		days					
17H 55 Gallor	n Drums	ea.					
Standby Time	3	hr. /2					
Comments:	wester 4	+ cu/	. 2-7	7-			
·.	31 RUTIUL	الد.					<u>.</u>
/	1 Part line		, <u>.</u>	13,2-			
	4 5-250=			9			
	Same						



Project Well Installation	No :	oculiale Bo	oring#: MW6 SG
Client <u>www.engineering</u>	Loc :	Albion, Michigan Di	illeMcCurdy / Pucci `
R&R Rep :	Date : 11	-19-92 Dr	il Bromley / Krukow
Client Rep: Ban Commentioners	Rig #:	CME 750 / CME 75A	Toe, moke
DESCRIPTION	UNITS Level D	Level C COMMENTS	TIME LOG
Mobilization and Demobilization	ea.		Start
of Drill Rig	1		
Augering, 4-1/4" H.S.A. 28, 656	182		6:00
(No Samples) 54 2wg Augering, 8-1/4" H.S.A. 83'	100	基語等等	
Augering, 8-1/4" H.S.A. 83"	ft.		7:00 Decon
(No Samples)			
Augering, 4-1/4 H.S.A	ft.		8:00 STARTMANG
w/ 2.5' and 5' c/c S.S. Samples			
Augering, 4-1/4 H.S.A	ft.		- 930 Set well
w/ cont. S.S. Samples			
Augering, 8-1/4 H.S.A	ft.		10:00 574, 4 6
w/ cont. S.S. Samples			HEROTER LEGELS ON A PART LEGEL LARGE H
Split Spoon Samples (3")	eag	(new dx)	
Shelby tubes, 3" Dia.	ea.	This Right Took	5 12.00 1 275. HALL
Sample Jars	dz		LUNCH A
Coring, NX or NXWL	ft.	Ligtor TANKE Nin. 9 STuck	
Air Rotary, 5-7/8" bit	ft. //	######################################	1:20 250
(No Sample)			2:00 12.72.
Packer Testing	hr.//		
		100 6 (100 km²)	3:00
Wooden Boxes, NX or NXWL	ea	Lug Stack IN THOIC	4:80
Vertical Groundwater Sampling throgh	ea.	# 1% # 1	
4.25°H.S.A.			5:00 5-17- 4004
Vertical Groundwater Sampling through	ea.		7. 7
Bedrock corehole			6:00
Reaming: NX to 5-7/8	ft.		
			End
Rig and Equipment Decontamination 义	ean		
	レンマー し	16 to 16 to 18	!



Project Well Installation	No	<u> </u>		004146	Bori	ng#: 1/1W-6-30
Client WW ENGINEERING	Loc	<u>:</u>	Albion, M	lichigan	Dril	dMcCurdy (Pucci)
R&R Rep:	Date	:_11	-19-	92-	Dril	Bromley / Krukow
Client Rep: An Johnson - Luncs	Rig #		CME 750	/ CME 75A	1.	The Mike.
DESCRIPTION	UNIT	Level D	Level C	COMMEN	TS	TIME LOG
Well development Setwell 222	hr.					
4" Protective Casing with	ea.					
3'x 3' x 4" Pad]
6 FL Steel Post, 2"x2"	ea.		A. C.			
Drilled & Concrete Set						
Screen: 2" PVC, SCH 40	ea.					
(Installed 10' Screen)	1/					
Screen: 2" PVC, SCH 40	ear					
(Installed 5' Screen)	100					
Screen: 2" PVC, SCH 40	ea.	İ				}
(3 ft. long material only)	/	ļ				
Riser: 2" PVC, SCH 40	ft.//	ļ				
(material only)	19			- 		
Riser: 2" PVC, SCH 40 2 8 (Installed) 5 9	In a	1				
	120		A PARTY AND A			
Locking Caps: 2" PVC, SCH 40 4	eag	}				
(Includes Master Lock)		<u> </u>				
Riser: 6* PVC, SCH 80	ft.	1				
(Installed)	1.9	/				
Backfill: 4-1/4" H.S.A. Grout in well annulas	18	{				
(Cement & powdered bentonite) 18						
Backfill: Bedrock Wells Grout in well annulas	ft.	}				
(Cement & powdered bentonite)						
Well Abandonment	ft.	}				
(Cement & powdered bentonite)						
Boring Abandonment	ft.	ĺ				
(Cement & powdered bentonite)	/	/				
Sand (80 lbs) 7'	fyil	}				
(In overburden wells)	1/7					
Sand (80 lbs)	ft.					
(In Bedrock Wells)	/					
Sand (80 lbs)	bag					
(Material Only)	/					

Project	Well Installation	No	<u></u>		204146	Borin	g#: MW 6 SG
Client	WW ENGINEERING	Loc	<u>:</u>	Albion, M	ichigan	Drillo	McCurdy/Pucci
R&R Rep	<u>:</u>	Date	: 11	-19-	-92	Dril <u>I</u>	Bromley / Krukow
Client Rep	· Lan Johnnes - Unites	Rig #	:	CME 750	CME 75A		Joe, Mike
DESCR	IPTION	ידואט!	Level D	Level C	COMMEN	TS	TIME LOG
Bentonite Pell	ers (50 lbs) LePlua	Pail.					
Out of Town (days	/				-
17H 55 Gallor	n Drums	ea.	1				
Standby Time		hr.					
Comments:	water HE	rul?	Nan	£			
	7 Parthum	<u></u>					
	1 But					 -	
	10 SACKNET	٠ ح					
T	2 Hole Pho	i C					



Project Well Installation	No	· <u>:</u>		004146	Bori	ng #: 6
Client <u>wwwengineering</u>	Loc	<u>.</u>	Albion, l	Michigan	Drill	McCurdy Pvcci
R&R Rep :	Date	:	-9-	92	Dril	Bromley / Krukow
Client Rep: In Johnsu -wwes	Rig #	<u> </u>	CME 750) / CME 75A		DOE M.KC
DESCRIPTION	UNIT	Level D	Level C	COMMEN	ITS	TIME LOG
Mobilization and Demobilization	ea.	1 .				Start 7
of Drill Rig	100	 	PAREQUEET.			6:00
Augering, 4-1/4" H.S.A.	ft.	İ				0.00
(No Samples) Augering, 8-1/4" H.S.A.	ft.	,	Respondent			7:00
(No Samples)		1			•	
Augering, 4-1/4 H.S.A	ft.		Parental	RFA		8.00 / h = K R 9
w/ 2.5' and 5' c/c S.S. Samples		,		SOO HE	<i>v</i> c	11.62
Augering, 4–1/4 H.S.A	ft.			Speared	FF	9.00 0
w/cont. S.S. Samples				BITTO OUNIXI	n) Dev	- 9300 GAFR S
Augering, 8-1/4 H.S.A	ft.	1	7.00			8:00 hock Rig Augers Stuck. 9:00 Bepair Rig 10:00
w/cont. S.S. Samples						
Split Spoon Samples (3")	ea.	·].				11:00
Shelby tubes, 3" Dia.	ea.			·		12:00
Sample Jars	dz					LUNCH To://30
Coring, NX or NXWL	ft.					146 Awjers LOS C
Air Rotary, 5-7/8" bit	ft.			·		M.CC T
(No Sample)						2.00 X G 134 1
Packer Testing	hr.					3:45 Decon
Wooden Boxes, NX or NXWL	ea.					4:00
Vertical Groundwater Sampling throgh 4.25"H.S.A.	ea.					5:00
Vertical Groundwater Sampling through	ea./		155586.			
Bedrock corehole						6:00
Reaming: NX to 5-7/8	ft.					End
Rig and Equipment Decontamination	ea.	699.				



Project	well installation	NO			004146	יונוסם -	ıg#:		
Client	WW ENGINEERING	Loc	<u>:</u>	Albion, l	Michigan	Drill	McCurdy	Pucci	
R&R Rep) :	Date	•	11-9-	92	Dril	Bromley /	Krukow	
Client Re	p: On Johnen-word	Rig #	•	CME 750	0 (CME 75A) 1	Joe	Mike	<i>-</i>
DESC	RIPTION	UNIT	Level D	Level C	СОММЕ	NTS	TIN	Æ LOG	
Well develop	oment	hr.							·
4" Protective	Casing with	ea. /							
3'x 3' x 4" Pa	•								
6-Ft. Steel Po	ost, 2"x2"	ea.							
Drilled & Co	oncrete Set		ļ		∥				
Screen: 2" PV	/C, SCH 40	ea.						•	
(Installed 10	Screen)	/							
Screen: 2" PV	/C, SCH 40	ea.							
(Installed 5'	Screen)	/				•	,		
Screen: 2" PV	/C, SCH 40	ea./						· ·	
(3 ft. long ma	nterial only)	/					•		
Riser: 2" PV	C,SCH 40	ft./							
(material onl	y)	/	•						•
Riser: 2" PV	C, SCH 40	ft. /							
(Installed)									
	s: 2" PVC, SCH 40	ea./						· •	* * * * * * * * * * * * * * * * * * *
(Includes Ma		1/ .	,				•		
Riser: 6" PV		ft.		(100,000)				,	
(Installed)			/						•
	/4" H.S.A. Grout in well annulas	14/					/		
(Cement & p	owdered bentonite)	69			16 BAgs F	2 Til	gad 1	Brit	Porber
	rock Wells Grout in well annulas	ft.		- 17 A 2 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1	0				<i>'</i>
	owdered bentonite)								
Well Abando		ft. /							
	owdered bentonite)		}						
Boring Aban		ft.		18 (8)				• •	
	owdered bentonite)								
Sand (80 lbs)		ft.							
(In overburd	•								
Sand (80 lbs)		ft.							
(In Bedrock	•								
Sand (80 lbs)		bag/							
(Material On		7	·						
<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	<u> </u>	1 <i>_</i>	<u> </u>	<u> </u>	u				



Project	Well Installation	No :			204146	Boring	g#:	6
Client	WW ENGINEERING	Loc	•	Albion, M		•	icCurdy	Pucci
R&R Rep) :	Date	: 1	1-9-	52	Dril lB	romley/	Krukow
Client Re	p: Un Johnmanie	, Rig #:		CME 750	CME 75A	,	Joe	Mike
DESC	RIPTION	UNITS	Level D	Level C	COMMEN	TS	TIM	Æ LOG
Bentonite Pe	llets (50 lbs)	Pail.						
Out of Town	Charges	days			4,			
17H 55 Gallo	on Drums	ea.					•	• •
Standby Time	е	hr.						
Comments:	water H	4 a l,	n	Dec	81	I		
_		(
					•			
							· .	

DAILY PROGRESS WORKSHEET

JOB #: LOCATION:

4011.00 Albion-Sheridan, MI

	Phase I	CONTRA	CTOR:	R&R Intern	ational_					
					D.D	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED
CODE LE	V DESCRIPTION	UNIT	BID AMOUNT	UNIT PRICE	BID QTY.	DATE: Monday	DATE: Tuesday	DATE: Wednesday	DATE: Thursday	DATE: Friday
				1,		11 130 192	121/192	12 1 2 192	12 1 3 192	12 1 4 192
										·
1	Mobilization/Demobilization	Rig	3,000.00	3,000.00	1				1 /~	
2	Standby Time	Hrs	4,800.00	120.00	40	,			1.5	1.0
3 D	Daily Personnel Prot. & Per Diem	Days	11,400.00	120.00	95			1	/	
4 C	Daily Personnel Prot. & Per Diem	Days	720.00	144.00	. 5					
5	Decontamination between locations	Moves	7,050.00	150.00	47	2				
. <u>в D</u>	Drilling\Samp: - On-landfill Borings 4:25 in,	Feet	0.00	17.50	. 0			34	4	46-CC
7 C	Drilling\Samp On-landfill Borings 4.25 in.	Feet	1,800.00	20.00	90					16
8 B	Drilling\Samp On-landfill Borings 4.25 in.	Feet	0,00	24,00	0					
9	Sample Jars	Dozen	18.00	4.50	4					
10 D	Deep Glacial Borings\Samp. 4:25 Inch	Feet	3,000.00	15.00	200					
11 C	Deep Glacial Borings\Samp. 4.25 inch	Feet	0.00	17.50	0					
12	Sample Jars	Dozen	22.50	4.50	5					
13 D	Deep Glacial Borings 4.25 inch	Feet	1,920.00	8.00	240					
14 C	Deep Glacial Borings 4:25 inch	Feet	0.00	10.50	0					
15 D	Shallow Glacial Borings 4.25 inchs	Feet	2,776.00	8.00	347	69.5				
16 C	Shallow Glacial Borings 4.25 inchs	Feet	0.00	10.50	0					
17 D	Borings\Samp. for 6 inch Casings 8.25 in.	Feet	6,360.00	26.50	240		·			
18 C	Borings\Samp, for 6 Inch Casings 8:25 in.	Feet	0.00	29.00	O					
19	Sample Jars	Dozen	45.00	4.50	10					
20 D	Borings\No Samp. 8.25 inch	Feet	3,000.00	15.00	200					
21 C	Borings\No Samp. 8.25 inch	Feet	0.00	18.00	0					
22 D	Additional Samples: 4.25 Inch	Samples	1,125.00	25.00	45					
	Additional Samples 4.25 inch	Samples	0,00	30,00	0					
24	Sample Jars	Dozen	18,00	4.50				•)	100	
	Shelby Tube Samples	Samples	1,200.00	60.00	20					
26 C	Shelby Tube Samples	Samples	0.00	75.00	0					
27 D	Bedrock Corings	Feet	3,400.00	20.00	170					
28 C	Bedrock Corings	30 000000000000000000000000000000000000	0.00	27.00	0					
	· · · · · · · · · · · · · · · · · · ·	Feet								
29	Wooden Core Boxes	Boxes	460.00	20.00	23	-				
30 D	Air Rotary Drillinga - Ream	Feet	3,060.00	18.00	170	<u> </u>		l .	1	

DAILY PROGRESS WORKSHEET

JOB #: LOCATION: 4011.00

Albion-Sheridan, MI

Phase I CONTRACTOR: R&R International WORK COMPLETED | WORK COMPLETED | WORK COMPLETED | WORK COMPLETED | WORK COMPLETED BID UNIT BID DATE: Tuesday DATE: Condustry DATE: Thursday DATE: Friday DATE: Monday CODE LEV DESCRIPTION UNIT **AMOUNT** PRICE QTY. 31 C Air Rotary Drillings - Ream 0.00 Feet 21.50 32 D. Air Rotary Drillings - Drill Feet 1,660,00 20.00 83 Air Rotary Drillings - Drill Feet 0.00 24.00 1,200.00 150.00 8 34 D Glacial Aquiler Temp. Well Samples 35 C Glacial Aquifer Temp, Well Samples 0.00 200.00 36 D Bedrock Aquiter Temp. Well **Samples** 5,600.00 700.00 8 37 C Bedrock Aquifer Temp. Well Samples 0.00 850.00 0 38 D Purging 1,920.00 120,00 16 Hours 39 C Purging Hours 0.00 145.00 0 40 D Packer Testing Hours 1,200.00 150,00 8 41 C Packer Testing Hours 0.00 180.00 0 42 D Well Casing - Install 6" ID Feet 6,734,00 14,00 481 Well Casing - Install 6" ID 43 C Feet 0.00 16.75 0 63 44 D 8.00 1442 Well Casing - Install 2" ID Feet 11,536,00 45 C Well Casing - Install 2" ID Feet 0.00 9.75 0 36 46 Well Screen - Furnish 2" Feet 108.00 3.00 47 D Well Screen 10' - Install Screen 120.00 40.00 Well Screen 10' - Install Screen 0.00 48.00 O 33 49 D Well Screen 5' - Install Screen 660.00 20.00 50 C Screen 0.00 Well Screen 5' - Install 24.00 0 51 Well Screen 3' - Furnish Screen 60.00 15.00 141 52 D Sand Pack - Glacial Leachate Wells Feat 760,00 4.00 190 12 Feet Sand Pack - GlaciaNLeachate Wells 0.00 4.75 0 77 54 D Sand Pack - Bedrock Wells Feet 269.50 3.50 55 C Sand Pack - Bedrock Wells Feet 0.00 4.25 O 56 Misc. Sand Pack - Furnish Bags 15.00 7.50 Bentonite/Cement Grout HSA Feet 1,751.75 2.75 637 58 C Feet Bentonite/Cement Grout HSA 0.00 3.50 0 59 D Bentonite/Cement Grout Bedrock Feet 1,472.50 2.50 589 60 C Bentonite/Cement Grout Bedrock Feet 0.00 3.00

DA	ILY PROGRESS WORKSHEET Phase I	LOCATIC		Albion-She R&R Intern		ı	•			
CODE LE	· · · · · · · · · · · · · · · · · · ·	UNIT	BID AMOUNT	- UNIT PRICE	BID QTY.	DATE: Marciau 11 / 30 /92	DATE: Tusday	DATE: (1) edusday	DATE: Thursday 18. 13 192	DATE: Friday
61 D	Bentonite Seal - Install	Feet	1,190.00	17.00	70	ч'		Д'		
62 C	Bentonite Seal - Install	Feet	0.00	20.50	0	· ·		· ·		20'
63	Bentonite Pellets - Furnish	Feet	70.00	35.00	2					
64 D	Abandon wells/remove and grout	Feet	200.00	5.00	40					
65 C	Abandon wells/remove and grout	Feet	0.00	6.00	0					
66 D	Abandon borings and grout	Feet	300.00	6.00	50					
. 67 C	Abandon borings and grout	Feet	. 0.00	7.25	0					
68	Well Riser End Caps, Locks & Keys	Wells	1,200,00	30,00	40	2		1		1
69	Alum. Protective Casings - Install	Wells	14,000.00	350.00	40	2.				1
70	Bumper Posts - Install	Posts	1,050.00	35,00	30					
71 D	Well Development	Hours	13,320.00	120.00	111	7	10.5	3	9	
72 C	Wall Development	Hours	1,305.00	145.00	9					
73	55 Gallon steet drums	Drums	2,800.00	35	80					
CO74	Water Hauling for Fluit Rotary Drilling & Coring	Hours	0.00	55	0					
CO75	Water Tank use for Fluid Rotary Drilling & Coring	Day	0.00	50	0		·	·		
CO76	Mobilization of equipment	L.S.	0.00	500	0					
CO77	Installing/pulling temporaty 4 inch casing	Hours	0.00	120	0	-	•			
CO78	Advance temporary 4 inch casing	Feat	0.00	29.50	0					
CO79	Wash rotary 3.875 inch bit (cleanout casing)	Hours	0.00	120.00	0					:
			\$125,676.25	INITIAL FOI	R APPRO	VAL CAR	WWES OC RAR SBM	WWES CC RTR DEM	WWES CC FFR	WWES CC RAR SBM

JOB #:

4011.00

IŢĒM		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
	Phase I.				
1.	MOBILIZATION/DEMOBILIZATION				
	Furnish drilling rig(s) capable of using hollow-stem augers and air rotary drilling and sampling to advance well borings through the unconsolidated sediments and sedimentary bedrock formations; supply trucks, drill crews, and all necessary equipment for drilling, sampling, well development, decontamination (water truck, steam cleaner, brushes, buckets, soap, water, etc.) and well completion; includes cleanup prior to site departure.	Lump Sum	1	\$	\$
2.	STANDBY TIME For 1 crew as directed by the PRIME CONTRACTOR	Per Crew-hour	40 hour	\$	\$
3.	DAILY PERSONNEL PROTECTION & PER DIEM Furnish personal health and safety equipment and personal decontamination equipment for drill crew and decontaminate personnel. Provide food and lodging for personnel,				

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	<u>UNIT PRICE</u>	EXTENDED TOTAL AMOUNT
			05.	•	•
	LEVEL D	Per Crew-day	95 days	\$	\$
	LEVEL C	Per Crew-day	5 days	\$	\$
4.	DRILL RIG AND EQUIPMENT DECONTAMINATION BETWEEN LOCATIONS	Per Move Between Locations	47 moves	\$	\$
5.	HOLLOW-STEM AUGER DRILLING AND SAMPLING	G .			
5A.	LANDFILL BORINGS (LF-1, LF-2, and LF-3) a) Hollow-stem auger drilling (4.25-inch ID) with continuous split-spoon sampling using a 3-inch ID x 2-foot long sampler to the bottom of the borehole.		·	· .	
	LEVEL D (unit price information only)	Per Foot		\$	
	LEVEL C	Per Foot	90 Feet	\$	\$
	LEVEL B (unit price information only)	Per Foot		\$	
	b) Sample Jars - Provide clean sample jars and lids for samples collected.	Per Dozen	4 Dozen	\$	\$

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
5B.	DEEP GLACIAL DEPOSIT WELL BORINGS a) Hollow-stem auger drilling (4.25-inch ID) to provide borehole to set a deep glacial well at 5 locations; split-spooning at 2.5 feet intervals to 10 feet, every 5 feet thereafter.				
	LEVEL D	Per Foot	200 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
	b) Sample Jars - Provide clean sample jars and lids for samples collected.	Per Dozen	5 Dozen	\$	\$
	 c) Hollow-stem auger drilling (5.25-inch ID) to provide borehole to set a deep glacial well at 6 locations; no sampling required. 				·
	LEVEL D	Per Foot	240 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
5C.	11 SHALLOW GLACIAL DEPOSIT WELL BORINGS Hollow-stem augering (4.25-inch ID) No sampling required.				
	LEVEL D	Per Foot	347 Feet	\$	\$
	LEVEL C (Unit Price information only)	Per Foot		\$	

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

ITEM		REQUIRED METHOD OF PAYMENT	ESTIMATED QUANTITY	<u>UNIT PRICE</u>	EXTENDED TOTAL AMOUNT
5D.	BORINGS FOR 6-INCH CASING a) Hollow-stem augering (8.25-inch ID) 2 feet into the top of bedrock at 6 locations. Continuous 3-inch x 2-foot split-spoon sampling to the bedrock.	·	·		. !
	LEVEL D	Per Foot	240 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
	b) Sample Jars - provide clean sample jars and lids for samples collected.	Per Dozen	10 Dozen	\$	\$
	c) Hollow-stem augering (8.25-inch ID)2 feet into the top of bedrock at 5 locations.No sampling required.				•
	LEVEL D	Per Foot	200 Feet	. \$	\$ <u>-</u>
	LEVEL C (unit price information only)	Per Foot		\$	
5E.	ADDITIONAL SAMPLES a) Collect soil samples using 3-inch ID x 2-foot long split-spoon samplers. Collect through 4.25 ID hollow-stem augers in boreholes drilled for well installation as directed by PRIME CONTRACT.	TOR.	· .		

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<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	<u>UNIT PRICE</u>	EXTENDED TOTAL AMOUNT
	LEVEL D	Per Sample	45 Samples	\$	\$
	LEVEL C (unit price information only)	Per Sample		\$	1
	b) Sample Jars - provide clean sample jars and lids for samples collected.	Per Dozen	4 Dozen	\$	\$
5F.	SHELBY TUBE SAMPLES				
	Collect Thin-Walled (Shelby tube) samples using a 3-inch diameter, 3-foot long. Seal and label the tube in accordance with ASTM D1587.				*
	LEVEL D	Per Sample	20 Samples	\$	\$
	LEVEL C (unit price information only)	Per Sample		\$	
6.	BEDROCK DRILLING AND SAMPLING		•		
6A.	BEDROCK CORING a) NX coring, continuous from the top of bedrock to the bottom of the borehole using a split inner core barrel.				
	LEVEL D	Per Foot	170 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot	•	\$	
	b) Wooden Core Boxes - provide new, hinged wooden core boxes to contain bedrock cores.	Per Box	23 Boxes	\$	\$

<u>ITEM</u>	·	REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
6B.	AIR ROTARY DRILLING				
	 a) Air Rotary Bedrock Drilling - Ream bedrock corehole with 4 7/8-inch tri-cone roller bit. 	•			
	LEVEL D	Per Foot	170 Feet	\$. \$
	LEVEL C (unit price information only)	Per Foot		\$	
	b) Air Rotary Bedrock Drilling Drill borehole in bedrock with 4 7/8-inch tri-cone roller bit. No sampling required.				
	LEVEL D	Per Foot	83 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
7.	VERTICAL GROUND WATER SAMPLING	·			
7A.	GLACIAL AQUIFER Provide and install temporary well of 2-inch diameter PVC casing with a 5-foot long screen to collect a ground water sample from below the 4.25-inch ID hollow-stem augers. One well will be dedicated to each borehole (2 boreholes).				
	LEVEL D	Per Sample	8 Samples	\$	/ \$
	LEVEL C (unit price information only)	Per Sample		\$	

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
7B.	BEDROCK AQUIFER Provide and install temporary well of 2-inch diameter PVC casing with a 5-foot long screen to collect ground water samples from the bedrock corehole using a packer to isolate the screened interval. One well will be dedicated to the corehole (1 corehole).				·
	LEVEL D	Per Sample	8 Samples	\$ <u>`</u>	\$
	LEVEL C (unit price information only)	Per Sample		\$	
7C.	PURGING Develop temporary well prior to sample collection. Collect purge water and transport to support area.				
	LEVEL D	Per Hour	16 Hours	\$	\$
	LEVEL C (unit price information only)	Per Hour		\$	<i>y</i>
8.	PACKER TESTING Provide packer assembly, set up, and test the conductivity of the bedrock according to test designation E-18 as provided.				
	LEVEL D	Per Hour	8 Hours	\$	\$
	LEVEL C (unit price information only)	Per Hour		\$	

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
9.	WELL CASING				
9A.	6-INCH ID CASING Furnish and install 6-inch diameter Schedule 80 PVC, flush joint surface casing for bedrock wells. Install through 8.25-inch hollow-stem augers with neoprene K-packer at base.				
	LEVEL D	Per Foot	481 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot	·	\$	
9B.	2-INCH ID CASINGa) Furnish and install 2-inch ID, Schedule 40 PVC, flush joint casing.				
	LEVEL D	Per Foot	1,442 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
	b) Furnish 2-inch diameter, Schedule 40 PVC flush joint casing for 4 wells installed by PRIME CONTRACTOR (material only).	Per Foot	36 Feet	\$	\$

ITEM		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
10.	WELL SCREEN				
10A.	10-FOOT LONG Furnish and install 10-foot long, 2-inch ID continuous 0.010 slot, flush joint, Schedule 40 PVC screen through 4.25-inch hollow-stem augers.				
	LEVEL D	Per Screen	3 Screens	\$	\$
	LEVEL C (unit price information only)	Per Screen		\$	
10B.	5-FOOT LONG Furnish and install 5-foot long, 2-inch ID, continuous 0.010-inch slot, flush joint, Schedule 40 PVC screens.				
	LEVEL D	Per Screen	33 Screens	\$	\$
	LEVEL C (unit price information only)	Per Screen		\$	
10C.	3-FOOT LONG Furnish 3-foot long, 2-inch ID Schedule 40 PVC screen for hand augered borehole (material only)	Per Screen	4 Screens	\$	\$

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
11.	SAND PACK a) Glacial and Leachate Wells - Furnish and install sand pack for annular space around well screens through hollow-stem augers.				
	LEVEL D	Per Foot	190 Fæt	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
	 b) Bedrock Wells - Furnish and install sand pack for annular space around well screens in bedrock boreholes. 				
,	LEVEL D	Per Foot	77 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	·
	 c) Miscellaneous - Furnish sand pack materials for 4 wells installed by PRIME CONTRACTOR (materials only). 	Per Bag	2 Bags	\$	\$
12.	CEMENT/BENTONITE GROUT				e e
12A.	CEMENT/BENTONITE GROUT a) Furnish and install cement/bentonite grout in annular space for wells through hollow-stem augers.			· :	

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
	LEVEL D	Per Foot	637 Feet	\$	\$
	LEVEL C (Unit Price information only)	Per Foot		\$	·
	b) Furnish and install cement/bentonite grout in annular space for bedrock wells.				
	LEVEL D	Per Foot	589 Feet	\$	\$
	LEVEL C (Unit Price information only)	Per Foot	in.	\$	
12B.	BENTONITE SEAL a) Furnish and install 2-foot bentonite pellet seal during well installation.				
	LEVEL D	Per Foot	70 Feet	\$	S
	LEVEL C (Unit Price information only)	Per Foot		\$	
	 b) Furnish bentonite pellets for each of 4 wells installed by the PRIME CONTRACTOR (material only). 	Per Bucket	2 Buckets	\$	\$

	REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
ABANDONMENT a) Wells - Remove all above ground well materials and tremie. Grout the borehole with cement/bentonite grout from bottom to top.	·			
LEVEL D	Per Foot	40 Feet	\$	\$
LEVEL C (unit price information only)	Per Foot		\$	
 b) Borings - grout borehole with cement/bentonite grout from bottom to top through tremie pipe. 			·	
LEVEL D	Per Foot	50 Feet	\$	\$
LEVEL C (unit price information only)	Per Foot		\$ <u>.</u>	•
WELL COMPLETION				
WELL RISER END CAPS, LOCKS, AND KEYS	Per Well	40 Wells	\$	\$
PROTECTIVE CASINGS Furnish and install hinged, anodized, aluminum protective casing, with locking cap. Installation includes securing protective casing in cement (including cement).	Per Well	40 Wells	S	S
	a) Wells - Remove all above ground well materials and tremie. Grout the borehole with cement/bentonite grout from bottom to top. LEVEL D LEVEL C (unit price information only) b) Borings - grout borehole with cement/bentonite grout from bottom to top through tremie pipe. LEVEL D LEVEL D LEVEL C (unit price information only) WELL COMPLETION WELL RISER END CAPS, LOCKS, AND KEYS PROTECTIVE CASINGS Furnish and install hinged, anodized, aluminum protective casing, with locking cap. Installation	ABANDONMENT a) Wells - Remove all above ground well materials and tremie. Grout the borehole with cement/bentonite grout from bottom to top. LEVEL D Per Foot LEVEL C (unit price information only) Per Foot b) Borings - grout borehole with cement/bentonite grout from bottom to top through tremie pipe. LEVEL D Per Foot LEVEL C (unit price information only) Per Foot WELL COMPLETION WELL RISER END CAPS, LOCKS, AND KEYS Per Well PROTECTIVE CASINGS Furnish and install hinged, anodized, aluminum protective casing, with locking cap. Installation includes securing protective casing in	ABANDONMENT a) Wells - Remove all above ground well materials and tremie. Grout the borehole with cement/bentonite grout from bottom to top. LEVEL D Per Foot D Borings - grout borehole with cement/bentonite grout from bottom to top through tremie pipe. LEVEL D Per Foot D P Per Foot D P Per Foot D P Per Foot D P Per Foot D P P P P P P P P P P P P P P P P P P	METHOD OF PAYMENT QUANTITY UNIT PRICE ABANDONMENT a) Wells - Remove all above ground well materials and tremie. Grout the borehole with cement/bentonite grout from bottom to top. LEVEL D Per Foot 40 Feet \$

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED QUANTITY	<u>UNIT PRICE</u>	EXTENDED TOTAL AMOUNT
13C.	BUMPER POSTS Furnish and install concrete filled bumper posts 4 inches in diameter which extend 3 feet above ground surface and 3.5 feet below ground surface as directed by the PRIME CONTRACTOR to protect monitoring wells.	R Per Post	30 Posts	\$	\$
14.	WELL DEVELOPMENT Development of installed permanent wells. Capture and contain purge water. Transport drums of purge water to support area.				
	LEVEL D	Per Hour	111 Hours	\$	\$
	LEVEL C	Per Hour	9 Hours	\$	\$
15.	DRUMS Provide 55-gallon steel drums approved by the U.S. Department of Transportation to store soil cuttings and development water.	Per Drum	80 Drums	\$	\$
16.	ESTIMATE OF TIME REQUIRED FOR PHASE I MONITORING WELL/SOIL BORING INSTALLATION	NS _	work days		
		·		SUBTOTAL PHASE I	\$

		REQUIRED	ESTIMATED		EXTENDED
<u>ITEM</u>	1	METHOD OF PAYMENT	<u>OUANTITY</u>	<u>UNIT PRICE</u>	TOTAL AMOUNT
	Phase II				
17.	MOBILIZATION/DEMOBILIZATION	· ,		·	
	Furnish drilling rig(s) capable of using hollow-stem augers and air rotary drilling and sampling to advance well borings through the unconsolidated sediments and sedimentary bedrock formations; supply trucks, drill crews, and all necessary equipment for drilling, well development, decontamination (water truck, steam cleaner, brushes, buckets, soap, water, etc.) and well completion; includes cleanup prior to site departure.	Lump Sum	. 1	\$	\$
18.	STANDBY TIME For 1 crew as directed by the PRIME CONTRACTOR	Per Crew-hour	12 Hours	\$	\$
19.	DAILY PERSONNEL PROTECTION & PER DIEM Furnish personal health and safety equipment and personal decontamination equipment for drill crew and decontaminate personnel. Provide food and lodging for personnel.				

<u>ІТЕМ</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
	LEVEL D	Per Crew-day	45 days	\$	\$
	LEVEL C (unit price information only)	Per Crew-day		\$	
20.	DRILL RIG AND EQUIPMENT DECONTAMINATION BETWEEN LOCATIONS	N Per Move Between Locations	20 moves	· \$	\$
21.	HOLLOW-STEM AUGER DRILLING				
21A.	5 DEEP GLACIAL DEPOSIT WELL BORINGS Hollow-stem auger drilling, (4.25-inch ID), no sampling required.				
	LEVEL D	Per Foot	200 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
21B.	BORINGS FOR 6-INCH CASING a) Hollow-stem augering (8.25-inch ID) 2 feet into the top of bedrock at 7 locations. No sampling required.				
	LEVEL D	Per Foot	280 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
21C.	ADDITIONAL SAMPLES a) Collect soil samples using 3-inch ID x 2-foot long split-spoon samplers. Collect through 4.25 ID hollow-stem augers in boreholes drilled for well installation as directed by PRIME CONTRA	CTOR.	·		
	LEVEL D (unit price information only)	Per Sample		\$	
	LEVEL C (unit price information only)	Per Sample		· \$	
	 b) Sample Jars - provide clean sample jars and lids for samples collected. (unit price information only) 	Per Dozen		\$	
22.	BEDROCK AIR ROTARY DRILLING				
	 a) Air Rotary Bedrock Drilling - Drill borehole in bedrock with 4 7/8-inch tri-cone roller bit. No sampling required. 				
	LEVEL D	Per Foot	245 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	UNIT PRICE	EXTENDED TOTAL AMOUNT
23.	WELL CASING		·		
23A.	6-INCH ID CASING Furnish and install 6-inch diameter Schedule 80 PVC, flush joint surface casing for bedrock wells. Install through 8.25-inch hollow-stem augers with neoprene K-packer at base.				
	LEVEL D	Per Foot	280 Feet	\$	\$
•	LEVEL C (unit price information only)	Per Foot		\$	
23B.	2-INCH ID CASINGa) Furnish and install 2-inch ID, Schedule 40 PVC, flush joint casing.	·			· . ·
	LEVEL D	Per Foot	689 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot	·	\$	
24.	WELL SCREEN				
24A.	5-FOOT LONG Furnish and install 5-foot long, 2-inch ID, continuous 0.010-inch slot, flush joint, Schedule 40 PVC screens.				

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	<u>UNIT PRICE</u>	EXTENDED TOTAL AMOUNT
	LEVEL D	Per Screen	12 Screens	\$	\$
	LEVEL C (unit price information only)	Per Screen		\$	
25.	SAND PACK a) Glacial Wells - Furnish and install sand pack for annular space around well screens through hollow-stem augers.				
	LEVEL D	Per Foot	35 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
	b) Bedrock Wells - Furnish and install sand pack for annular space around well screens in bedrock boreholes.	•			
	LEVEL D	Per Foot	49 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	
26.	CEMENT/BENTONITE GROUT				
26A.	CEMENT/BENTONITE GROUT a) Furnish and install cement/bentonite grout in annular space for wells through hollow-stem augers.				

<u>ITEM</u>		REQUIRED • METHOD OF PAYMENT	ESTIMATED OUANTITY	<u>UNIT PRICE</u>	EXTENDED TOTAL AMOUNT
	LEVEL D	Per Foot	155 Feet	\$	\$
	LEVEL C (Unit Price information only)	Per Foot		\$	
	b) Furnish and install cement/bentonite grout in annular space for bedrock wells.				
	LEVEL D	Per Foot	462 Feet	\$	\$
	LEVEL C (Unit Price information only)	Per Foot		\$	
26B.	BENTONITE SEAL Furnish and install 2-foot bentonite pellet seal during well installation.	·	,		
	LEVEL D	Per Foot	24 Feet	\$	\$
	LEVEL C (Unit Price information only)	Per Foot		\$	
26C.	ABANDONMENT a) Wells - Remove all above ground well materials and tremie. Grout the borehole with cement/bentonite grout from bottom to top.				
	LEVEL D	Per Foot	40 Feet	\$	\$
	LEVEL C (unit price information only)	Per Foot		\$	

<u>ITEM</u>	REQUIRED METHOD OF PAYMENT	ESTIMATED OUANTITY	<u>UNIT PRICE</u>	EXTENDED TOTAL AMOUNT
 b) Borings - grout borehole with cement/bentonite grout from bottom to top through tremie pipe. 				
LEVEL D	Per Foot	50 Feet	\$	\$
LEVEL C (unit price information only)	Per Foot		\$	
27. WELL COMPLETION				
27A. WELL RISER END CAPS, LOCKS, AND KEYS	Per Well	12 Wells	\$	\$
27B. PROTECTIVE CASINGS Furnish and install hinged, anodized, aluminum protective casing, with locking cap. Installation includes securing protective casing in cement (including cement).	Per Well	12 Wells	\$	\$
27C. BUMPER POSTS Furnish and install concrete filled bumper posts 4 inches in diameter which extend 3 feet above ground surface and 3.5 feet below ground surface as directed by the PRIME CONTRACT to protect monitoring wells.	OR Per Post	10 Posts	s	S

<u>ITEM</u>		REQUIRED METHOD OF PAYMENT	ESTIMATED QUANTITY	<u>UNIT PRICE</u>	EXTENDED TOTAL AMOUNT
28.	WELL DEVELOPMENT Development of installed permanent wells. Capture and contain purge water. Transport drums of purge water to support area.				
	LEVEL D	Per Hour	36 Hours	\$	\$
	LEVEL C (unit price information only)	Per Hour		\$	
29.	DRUMS				
	Provide 55-gallon steel drums approved by the U.S. Department of Transportation to store soil cuttings and development water.	Per Drum	20 Drums	\$	\$
30.	ESTIMATE OF TIME REQUIRED FOR PHASE II MONITORING WELL/SOIL BORING INSTALLATION	ons _	work days	S	
				SUBTOTAL PHASE II	\$
			S	SUM OF EXTENDED TOTALS AND BID PRICE THAT IS ENTERED ON PAGE 00300.1	S \$